

INTRODUCTION

This report presents alternative methodologies for identifying rural and non-rural areas for federal subsistence management in Alaska. It is the final report for the project, *Rural/Non-Rural Determinations for Federal Subsistence Management in Alaska* (Contract No. 701811CO58), U.S. Fish and Wildlife Service, Alaska Region.

The project was a joint research effort of the Institute of Social and Economic Research (ISER) at the University of Alaska, Anchorage, and Robert J. Wolfe and Associates. The project director was Victor Fischer, Professor of Public Affairs at ISER. The principal investigator was Robert J. Wolfe, a sociocultural anthropologist and former Research Director at the Division of Subsistence, Alaska Department of Fish and Game. ISER Research Associates Amy Craver, Mary Killorin, and Amy Wiita organized and conducted the project's eight focus groups in seven communities, including analysis of focus group materials and presentation of results. Bradford Tuck, Professor Emeritus of Economics at ISER, analyzed economic and commuting variables from the federal census. Cheryl Scott of Alaska Connections developed the project's main database, compiling information and developing variables drawn from federal census and Alaska state information sources. Brian Davis, Subsistence Specialist at the Alaska Department of Fish and Game, Division of Subsistence, analyzed spatial information from the federal census for density measures. The project also benefited from discussions with several colleagues, including Matthew Berman, Professor of Economics at ISER; Stephen Colt, Assistant Professor of Economics at ISER; Joseph Jorgenson, Professor Emeritus of Anthropology, University of California, Irvine; and Stephen Langdon, Professor of Anthropology, University of Alaska, Anchorage. Marcia Trudgen, ISER Business Manager, provided administrative support.

The report develops two alternative methodologies for distinguishing rural and non-rural populations in Alaska for federal subsistence management. The methodologies use measures drawn from the federal decennial census and the State of Alaska's harvest records, among other relevant data sources. An overriding goal of the project was to use a minimal number of criteria that clearly, effectively, and defensibly distinguish between rural and non-rural populations. The two methodologies are tested on a selection of Alaska communities.

This final report (*Deliverable Six*) presents findings of the project. It represents a synthesis of five interim products developed during the study -- a literature review (*Deliverable One*), focus group contributions (*Deliverable Two*), criteria development (*Deliverable Three*), methodologies (*Deliverable Four*), and tests of methodologies (*Deliverable Five*). Each interim product was reviewed by an outside Technical Evaluation Panel with members from five agencies -- Laura Jurgensen of the U.S. Fish and Wildlife Service; Taylor Brelsford of the Bureau of Land Management; Don Callaway of the National Park Service; James Fall of the Alaska Department of Fish and Game, Division of Subsistence; and Pat Reed of the U.S. Forest Service.

The report begins with a presentation of rural concepts, including its common meanings and its meanings from the scientific literature. Three core meanings are discussed – rural as “the country,” rural as “ways of making a living in the country,” and rural as “cultural patterns of country peoples.” Rural definitions specific to subsistence management in Alaska by the federal and state programs are summarized. The report then discusses rural concepts contributed by eight focus groups convened as part of the project. The next sections identify criteria (variables and measures) that can be used to distinguish rural and non-rural populations in Alaska. Two potential measures are developed specifically for the project – measures of *country food production* and *population density*. Issues surrounding the aggregation and disaggregation of populations for measurement and analysis are discussed in some detail, including a discussion of *co-resident communities*.

Two alternative methodologies are presented for distinguishing rural and non-rural populations in Alaska -- *Discriminant Analysis Assessment* and *Criterion-Referenced Assessment*. Each methodology is developed and tested using a set of 195 populations. The outcomes of these test assessments are compared. Finally, the report provides recommendations for a preferred methodology and additional data collection for conducting rural assessments. Three appendices provide detail regarding variables (Appendix A), sixteen statistical runs testing the Discriminant Analysis Assessment methodology (Appendix B), and federal census commuting codes (Appendix C). Documentation of the project’s database, methodologies, and tests is provided on an accompanying compact disk.

Our tests of methodologies should not to be construed as actual determinations of rural and non-rural status. The analyses were performed to determine whether the concepts developed in the study would work in real world application. Implementation of the recommended methodology requires a number of additional steps outlined in the report.

The recommended methodology does not preempt any Federal Subsistence Board prerogatives. Rather, it is intended to facilitate rural status determinations by the Board. It clarifies the categorization of most areas and focuses on the process of final decision making with respect to remaining communities. Final determinations are thus clearly subject to Board decisions.

Finally, this report is submitted for consideration by the Federal Subsistence Board to help determine methods for future subsistence determination, and it should not be construed to represent policies of the Board. The analysis and recommendations of the report are those of the authors and do not necessarily reflect the views of others involved in the study.